A STUDY OF OCCUPATIONAL ACHIEVEMENT OF MIGRANTS TO KAOSHIUNG CITY, TAIWAN

Ching-fu Chang * Kao-chiao Hsieh**

I. INTRODUCTION

A. The Research Problem

Migration is a dynamic social process (Goldscheider, 1971: 48-50). It not only promotes one area’s economic development but also is a life and progression (Lee, 1966: 54). Individuals can adjust their social system through migration. For instance, one can alter occupational opportunities through the migration process. However, since Ravenstein (1885, 1889) found his “laws of migration”, the theory of migration can be categorized into a gravity model (Stouffer, 1940; Isard, 1960: 493-568) and differential migration (Jansen, 1970). One shortcoming of both theories is that they do not pay attention to individual-choice behavior. This study will try to analyze migrants’ adjustment in an urban place of a developing country. We want to know how they adjust to an urban environment and its occupational structure, and social network institutions. More importantly, we also want to know the details of this adjustment process.

†This paper is part of the first author’s Ph.D. dissertation. The first author thanks William P. Bridges, Barry R. Chiswick, William T. Liu, Mark Rodeghier, Chris Ross, and Elena Yu for their helpful comments and suggestions on this paper. The comments of two anonymous reviewers were both appreciated and useful. The data used in this paper were collected by the second author. For data information and the sample design, see Hsieh (1981).

*Associate Professor, Department of Sociology, National Chung Hsing University.

**Professor, Department of Sociology, National Cheng Chi University.
B. The Objectives of the Study

This study examines determinants of occupational achievement of migrants to Kaohsiung, the largest city in the southern part of Taiwan. Based on the framework of contextual analysis, which explains individual behavior in its social and environmental context, this paper investigates the effects of structural and individual variables on the occupational achievement of subgroups of Mainlanders and Taiwanese by sex. Data were collected by Kao-chiao Hsieh, Professor of Sociology, at National Cheng-chi University in the summer of 1978. This study proposes that occupational achievement is a function of individual and household variables and individuals’ information network structure in cityward migration. Our goals are: (1) to investigate educational attainment and information structure patterns among migrants; (2) to decide whether if, and to what extent, ethnicity and gender differences influence intragenerational occupational mobility among migrants; and (3) to determine which theoretical approach, i.e., status attainment or information, will have greater explanatory power for explaining occupational achievement among migrants.

C. Definition of Migration

Generally speaking, people moving from one place to another one is called migration. However, this concept is very vague. For example, are commuter students or workers migrants? Indeed, they move from one place to another everyday. But they do not change their permanent residence. If these people are regarded as migrants, then migration study might be more complex and difficult. To avoid this potential problem, in this paper, we define migration as a person or a group changing their residence from their original township to another one and changing their environment and social system. This definition is close to other definitions of migration (Bogue, 1959; Lee, 1966; Mangalam and Schwarzweller, 1975; Nam and Gustavus, 1976; Petersen, 1975). It not only includes population redistribution (Goldscheider, 1971: 66; Lee, 1966: 147) but also changes an individual’s community relationship (Bogue, 1959: 499; Hawley, 1950: 327). More importantly, as Bogue emphasized: “in the process of changing his community of residence, the migrant tends simultaneously to change employers, friends, neighbors, parish mem-
bership and many other social economic ties.” Under this definition, this change is a permanent movement and migrants must live in the destination at least six months. This definition includes both spatial and social change for migrants. It also allows us to exclude travellers, seasonal movers (see Speare, 1971) and movers within one township, all of which have little effect on one’s enduring social environment. Thus the subjects in our sample must: (1) live in Kaohsiung at least six months before the date of our interview; and (2) move to Kaohsiung from another township but not move within districts of Kaohsiung because their community relationship does not change significantly.

D. Limitations of the Study

This project has some limitations. First, as we know, migrants are a highly selective group and have some differential characteristics compared to non-migrants (Chang, 1986). Also, it should be noted that our subjects are heads of household or their spouses. Therefore, these results can only apply to certain migrant groups. To generalize the findings to the broader population may not be valid.

Second, this is a case study confined to a metropolitan community—Kaohsiung City. The characteristics of these migrants may differ from other migrants (Chang, 1986) such as rural or other urban migrants. We should be careful when generalizing our findings to other areas.

Third, because we limit our sample to 1977 migrants into Kaohsiung city, it means that their length of residence is half to one and a half years. This may be too short a time to see the fuller adjustment to new conditions though we do demonstrate that our sample is similar to other surveys (Chang, 1986).

II. LITERATURE REVIEW AND HYPOTHESES

A. Theoretical Orientation
a. Human Capital/Status Attainment Theory

Sociologists or economists of this school emphasize that individuals can achieve their occupational attainment through their ability. Most research deals with migrant and non-migrant (Blau and Duncan, 1967; Duncan et al., 1972; Greenwood, 1975; Lane, 1977) or native-born and foreign-born (Chiswick, 1978; 1982) with occupational achievement. More recently, research also pays attention to the mobility of women (Duncan and Perrucci, 1976; Rank and Voss, 1982) and age effect on occupational achievement and migration (Lane, 1977). It is the purpose in this section to relate these three variables to migration and occupational mobility.

1. Migratory Status

It is generally recognized that occupational mobility is associated with migration (Freedman and Hawley, 1949; Prehn, 1967; Scudder and Anderson, 1954). Lipset and Bendix (1959) have suggested that for the U.S., migration from rural to urban areas operates today as immigration of foreigners functioned in the past. However, before Blau and Duncan (1967) published the American Occupational Structure in 1967, empirical investigations into social stratification and mobility focused primarily on tabular analyses of occupational distributions. Blau and Duncan introduced a new approach to research on stratification, a causal model which linked occupational mobility to the life cycle of individuals. Among the conceptual elements were the representation of occupational differentiation as a status hierarchy, the assumption that intergenerational mobility can be expressed as a “basic model” involving causal linkages among five variables, and the demonstration of the utility of regression (path) analysis for estimating the parameters of such a model. The basic model can be expressed in Figure 1.

Blau and Duncan found that migrants tend to be superior in their social origins and background characteristics as compared to nonmigrants at both origin and destination point.

The main question addressed by Duncan and his associates in their study was “whether the occupational achievements of men are favorably or unfavorably influenced by the experience of migration” (1972:224). They identified two types of migrants: migrants with nonfarm backgrounds and those with farm backgrounds.
Figure 1: Blau's and Duncan's Path Model of the Process of Occupational Attainment

The general conclusions of this research were that migrants with farm backgrounds achieve higher status than those who do not migrate but consistently achieve lower occupational status than either migrants or non-migrants with non-farm backgrounds. A substantial part of the differential in occupational attainment is that migrants are favorably selected with respect to family background and education. These findings are consistent with the results of the earlier analysis of the same data by Blau and Duncan (1967).

Meanwhile, research on developing societies, mainly Latin American, shows the same pattern as for the U.S. Using data gathered in Argentina, Brazil, and Chile, Bock and Iutaka (1969) examined migratory status and occupational achievement. They concluded that rural migrants tended to be upwardly mobile in the urban areas, although they might not reach the occupational levels attained by urbanites. More importantly, however, they emphasized that education plays a greater role than other variables in determining social mobility especially for a younger population. Analyzing the Chilian study in Santiago, Raczynski (1972) found the same result. These conclusions confirm that migrants have a mobility disadvantage in Latin America's large cities. Raczynski also revealed that farm background is not a handicap to occupational mobility. This would suggest that investment in human
capital might raise migrants' occupational achievement (Becker, 1964; Sjaastad, 1962). Yet, he confirmed that an early farm occupation is a handicap over and above differences in social origin and education. Dealing with data collected in Monterrey, Mexico, Balan (1968) has shown that sons of farmers are handicapped in the city by their fathers' generally lower status but not necessarily by the farm occupational setting where they grew up. Gathering data in Mexico City and Ankara, Turkey, Moots (1976) found the same conclusion as Bock and Iutaka (1969) and Racynski (1972). Using data from Seoul and Chouju, Korea, Koo and Barringer (1977) examined the effects of rural background on rural migrants' socioeconomic achievement in Korean society. Applying the Blau-Duncan basic model, they found, in general, rural migrants tend to obtain lower occupational and income status positions than either native urbanites or urban migrants. These status differences, however, seem to be due largely to rural migrants' educational inferiority to men of urban origins. However, rural migrants still have higher occupational status compared to their original groups. Given these consistent findings, we can conclude that the relationships between rural background and urban status achievements are basically constant across developed and developing societies. Thus, socioeconomic status achievements depend on the educational background a person brings to the urban labor market.

2. Age Selectivity

Migration (Matras, 1973; Petersen, 1975) and job mobility (Palmer, 1954) are, of course, age-specific. Thus, age appears to be a major factor in the status-attainment process because young migrants might have more occupational achievement than older migrants. Based on data from the Six City Survey of Labor Mobility in 1951, Lane (1977) examines the effect of migration on the occupational prestige and mobility of about 4,000 U.S. men aged 35-64. Comparing migrants to non-migrants, she found that the former are superior in mean socioeconomic statuses. Migrant superiority was due to initial advantages for men aged 35-44 only. This suggests that age is a relevant factor in the mobility experience for migrants and non-migrants. Once age is controlled, there is a positive migration effect on occupational status only for young men (below 45 years), while negative effects appear for older men. In an earlier study, Lane (1968) also found the same result. These two
studies generally confirm the findings of Blau and Duncan (1967) and Duncan et al. (1972) regarding the influence of selection on the superior occupational achievement of migrants.

Research in developing societies, however, has produced results which are contrary to U.S. findings. Using correlation analysis, Bock and Iutaka (1969) found an extremely low correlation between age at migration and social mobility. They concluded that age at migration and age appear to be of little or no predictive value for the social mobility of migrants to the cities. Raczynski (1972) found that there are mean occupational achievement differences between those who came at age 15 or earlier and those who arrived between aged 16-29, in which the former have done slightly better than the latter. Controlling socioeconomic background, the only difference is, he concluded, between migrants who arrived in Santiago at age 30 or older and those who arrived at an earlier age. However, the difference is very slight, suggesting that some special conditions of the labor market might have effects on occupational achievement for migrants.

3. Gender Differences

The above studies have focused on occupational mobility and attainment of male migrants and have disregarded the occupational mobility pattern of females. However, the unprecedented growth during the last few decades in the proportion of married women in the labor force (Oppenheimer, 1970) has translated into significant increases in the proportion of families in which both the husband and wife are in the labor force (Petersen, 1975). This change finds women pursuing not only traditional occupations but also occupations previously dominated by men. Using a sample of 992 households located in 37 fast-growing nonmetropolitan counties in the Upper Great Lakes area and Duncan SEI scores as measures of occupational mobility, Rank and Voss (1982) find that females fare worse than their male counterparts.

Previous research indicates that family migration often disrupts the work experiences of married women (Duncan and Perrucci, 1976; Ferber and Huber, 1979; Lichter, 1980, 1983; Long, 1974). Each researcher concluded that geographic mobility is detrimental to wives' continued participation in the labor force. When
the family of a working wife moves, she is less likely to be employed after the move. The greater the distance moved, the lower the likelihood of employment. Duncan and Perrucci (1976) find that neither the prestige of wives' occupations nor their relative contribution to family income influences relocation; only the characteristics of the husband's job are relevant. Therefore, if a married woman migrates in response to her husband's economic opportunities rather than her own, then migration can be viewed as having a negative effect on job continuity. Research has indicated that job continuity is, indeed, a crucial factor in women's occupational status and attainment in developed countries (Mincer and Polachek, 1974; Polachek, 1975; Rosenfeld, 1978).

Unfortunately, little research concerns gender differences in migration in developing countries. Analyzing 98 female migrants from two rural communities in northern Taiwan, Huang (1984) summarized her findings as follows: (1) a third of her sample were working in factories; (2) a few were engaged in unskilled manual work and in various urban services; and (3) only one in 20 was engaged in white-collar jobs. This finding suggests that female social mobility is still very limited after rural-to-urban-migration in Taiwan since few make a long-term commitment to work (Huang, 1984). However, she does not compare migrants to nonmigrants in her research.

b. Information Hypothesis

The information hypothesis suggests that the distant location of family and friends first encourages and, second, directs migration by increasing the potential migrant's awareness of conditions, particularly job opportunities, at the distant location. Thus, social ties play an important role in various phases of the migration process. Research showed that relatives and friends were the major source of information about the receiver area (Choldin, 1973; Lansing and Mueller, 1967; Litwak, 1960; Tilly and Brown, 1967). Generally, the more highly educated groups were less likely to rely on friends and family for information or to locate near relatives and friends than the less educated. These findings also confirm that social ties help migrants to obtain housing or assist in finding employment.

Social networks not only assist individuals to obtain employment but also influence individuals' occupational mobility. The newly arrived are less familiar with
the market than the older residents, and among the new migrants, we might assume that those who migrated from urban areas knew more about the kind of labor market they would face than those who came from other kinds of labor markets. Lurie and Rayack (1966) found that the majority of American workers found their current jobs through friends or relatives, or by applying directly to the firm. Comparing migrants to non-migrants, they found that migrants relied more on their friends and relatives to find their current jobs than on direct application at a firm. This study, however, did not control individuals' educational attainment. Holding educational attainment constant, Rossi (1973) found that friends and relatives are the most commonly employed channels of information, although direct application to employers is also important. More importantly, he shows that the lower educational levels tend to rely more on friends and relatives, and the higher educational groups use more active and impersonal means—direct application and to some extent, private and public employment agencies. He also concluded that both educational attainment and means used to find first and current jobs influenced occupational prestige. However, the major effect of means employed to find jobs occurs for the better educated groups. College graduates who rely on the informal help of friends or relatives obtain first jobs with considerably lower prestige than those who rely on direct application, employment agencies and advertisements.

At the same time, Granovetter (1973, 1974) argued that weak ties have a special role in a person's opportunity for mobility—that there is a "structural tendency for those to whom one is only weakly tied to have better access to job information one does not already have". In his empirical study, Granovetter (1974) found that if weak ties are defined by infrequent contact around the time information about a new job was obtained, then professional, technical, and managerial workers were more likely to hear about new jobs. Lin, Ensel, and Vaughn (1981) use similar definitions of weak and strong ties to probe the relation between tie strength and occupational status attainment. Their central findings was that the use of weak ties in finding jobs has a strong association with higher occupational achievement only insofar as the weak ties connect the respondent to an individual who is well placed in the occupational structure. In another study, Lin, Vaughn, and Ensel (1981) found that only the use of formal channels showed a slight positive effect on first occupational status. In addition, they concluded that those who use personal contacts hold a substantial advantage in the occupational attainment process if (1) they have access to and use greater social resources, and (2) the
social resource’s role in transferring the individual from the initial status to the achieved work status persists throughout his socioeconomic life.

In research on Chinese immigrants in Chicago, Li (1978) examined kinship assistance and occupational mobility. Based on the Blau-Duncan basic model and adding kinship assistance into the model, he found that education and kinship assistance have a negative relationship. He concluded, moreover, that kinship assistance restricts occupational mobility for Chinese immigrants. He noted that those who are more highly educated tend to seek non-ethnic jobs, i.e., they became professionals. The less educated found their ethnic jobs-entrepreneurial businesses—through kinship assistance. This would imply that education is important for occupational mobility.

Individuals may have access to more or less complicated networks of communication which contribute to their stock of social information and determine individual life chances in the city. If this is true, one might assume that access to sources of information before migration is positively related to status of first job in city. That is, the greater their access to information before migration, the better will be their first job in the city. Using eight “migration preconditions” as indicators of access to sources of information in the city, Hogan and Berlinck (1976) found that (1) the more prepared migrants obtain better jobs in Sao Paulo; (2) the indicators of access to information are more important in predicting occupational success of middle-class migrants.

Considering reasons for choosing their first jobs, Huang (1984) concluded that most female migrants cited “being introduced to the work by relatives” and “being able to work with friends” as their reasons for their first jobs. About 35 percent choose their first jobs through relatives or friends. Compared to the second job, this relation declined over time (Huang, 1984). This may demonstrate the role of increased knowledge of the new environment. However, one shortcoming is that she used a small sample.

B. Research Hypotheses
Based on theoretical orientation and incorporating the Blau-Duncan basic model, I propose a research framework as shown in Figure 2:

![Diagram](image)

Figure 2: A Model of Migration and the Process of Occupational Attainment

This model suggests that: (1) individual social background will influence educational achievement; (2) individual social background and individual education will influence occupational achievement before migration; (3) individual social background and individual education will influence individual’s access to sources of information; and (4) individual social background, individual education, occupational achievement before migration, and an individual’s information structure will influence individual occupational achievement after migration.

III. ANALYSIS

This part is an empirical evaluation of the theoretical model proposed in research hypotheses section. The model is an explanation of intragenerational mobility among cityward migration to Kaohsiung City, Taiwan. The results are presented in path model.
We assume a causal order in our hypothetical model (see research hypotheses section). To estimate the relationship between endogenous and exogenous variables, regression analysis was utilized. The path model consists of nine variables. Of which, six variables were classified into two major sets: individual and household background and information structure. The other three variables were occupational prestige before move and first and current occupational prestige after migration. The descriptions and codes of all variables in the path model are shown in Table 1.

Table 2 contains the means, standard deviations, and zero-order correlations among variables. The first four variables in the correlation matrix represent the individual background. The information structure variables are presented in variables five and six. The last three variables show occupational prestige of the respondent before and after migration.

After dropping some insignificant variables, the revised model is presented in figures 3 to 6 for both urban and rural migrants. Figures 3 and 5 represent path model of the process of stratification for first and current jobs for urban migrants while figures 4 and 6 are for rural migrants. The path coefficients also show up in the figures.

Since this is a recursive model, identification is not an issue. The error or residual of each regression is assumed to be random and independent of other residuals or variables. Exogenous variables are determined outside the model, and the arrow between them is not causal. That is, the curved line with arrowheads at both ends does not represent dependence or causal relationship, but simply the fact that predetermined variables are correlated for whatever reasons. On the other hand, the arrow from outside the model are residuals. For example, there are four arrows representing residuals in figure 3. All the arrows in the models can be interpreted as

---

2 We run separate regression of male and female within migrant status. The regressions show similar patterns as presented in figures 3 to 6. However, AGE and CITYEXP are not statistically different for male and female in rural migrants. This may cause special errors in our model.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Descriptions</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDUYEAR</td>
<td>Education of respondent</td>
<td>An interval scale in years</td>
</tr>
<tr>
<td>GENDER</td>
<td>Gender of respondent</td>
<td>A dummy variable with 1 = male; 0 = female.</td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>Ethnicity of respondent</td>
<td>A dummy variable with 1 = Mainlanders; 0 = Taiwanese.</td>
</tr>
<tr>
<td>AGE</td>
<td>Age of respondent</td>
<td>An interval scale.</td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASSIST</td>
<td>Relative assistance</td>
<td>A factor index with zero mean and unit variance.</td>
</tr>
<tr>
<td>CITYEXP</td>
<td>City experience</td>
<td>A factor index with zero mean and unit variance.</td>
</tr>
<tr>
<td>Occupational</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prestige</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCBEBEFORE</td>
<td>Treiman's (1977) score for occupation before move.</td>
<td>An interval level variable.</td>
</tr>
<tr>
<td>OCFFIRST</td>
<td>Treiman's (1977) score for first occupation after move.</td>
<td>An interval level variable.</td>
</tr>
<tr>
<td>OCNOW</td>
<td>Treiman’s (1977) score for current occupation.</td>
<td>An interval level variable.</td>
</tr>
</tbody>
</table>
Table 2: Zero-order Correlation Coefficients, Mean and Standard Deviation Among Variables

<table>
<thead>
<tr>
<th></th>
<th>EDUYEAR</th>
<th>GENDER</th>
<th>ETHNICITY</th>
<th>AGE</th>
<th>ASSIST</th>
<th>CITYEXP</th>
<th>OCBEFORE</th>
<th>OCFIRST</th>
<th>OCNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU</td>
<td>EDU</td>
<td>1.0000</td>
<td>0.1089</td>
<td>-0.0673</td>
<td>-0.3009</td>
<td>0.0634</td>
<td>0.1997</td>
<td>0.4888</td>
<td>0.4820</td>
</tr>
<tr>
<td>GENDER</td>
<td>GENDER</td>
<td>0.2314</td>
<td>1.0000</td>
<td>-0.0157</td>
<td>0.0724</td>
<td>0.1294</td>
<td>0.0941</td>
<td>0.1571</td>
<td>0.1852</td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>ETHNICITY</td>
<td>0.2841</td>
<td>0.0475</td>
<td>1.0000</td>
<td>0.3019</td>
<td>0.0045</td>
<td>0.0937</td>
<td>0.0101</td>
<td>-0.0029</td>
</tr>
<tr>
<td>AGE</td>
<td>AGE</td>
<td>-0.1473</td>
<td>0.0458</td>
<td>0.1771</td>
<td>1.0000</td>
<td>-0.1105</td>
<td>-0.0738</td>
<td>0.0147</td>
<td>-0.0107</td>
</tr>
<tr>
<td>ASSIST</td>
<td>ASSIST</td>
<td>-0.1679</td>
<td>-0.0553</td>
<td>-0.1013</td>
<td>-0.0125</td>
<td>1.0000</td>
<td>0.0300</td>
<td>-0.0449</td>
<td>-0.1016</td>
</tr>
<tr>
<td>CITYEXP</td>
<td>CITYEXP</td>
<td>0.1961</td>
<td>0.0399</td>
<td>0.1068</td>
<td>-0.0013</td>
<td>-0.0593</td>
<td>1.0000</td>
<td>0.0811</td>
<td>0.1680</td>
</tr>
<tr>
<td>OCBEFORE</td>
<td>OCBEFORE</td>
<td>0.5433</td>
<td>0.2805</td>
<td>0.2124</td>
<td>0.1311</td>
<td>-0.1730</td>
<td>0.0858</td>
<td>1.0000</td>
<td>0.6277</td>
</tr>
<tr>
<td>OCFIRST</td>
<td>OCFIRST</td>
<td>0.5521</td>
<td>0.2569</td>
<td>0.2125</td>
<td>0.1377</td>
<td>-0.1297</td>
<td>0.1708</td>
<td>0.7930</td>
<td>1.0000</td>
</tr>
<tr>
<td>OCNOW</td>
<td>OCNOW</td>
<td>0.5376</td>
<td>0.2831</td>
<td>0.1716</td>
<td>0.1433</td>
<td>-0.1130</td>
<td>0.1240</td>
<td>0.7302</td>
<td>0.9351</td>
</tr>
</tbody>
</table>

Urban Migrants

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
<th>STD DEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>9.6293</td>
<td>4.3455</td>
</tr>
<tr>
<td>STD DEV</td>
<td>0.8233</td>
<td>0.3823</td>
</tr>
</tbody>
</table>

Rural Migrants

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
<th>STD DEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>7.6500</td>
<td>4.0634</td>
</tr>
<tr>
<td>STD DEV</td>
<td>0.8273</td>
<td>0.3789</td>
</tr>
</tbody>
</table>

Note: The upper right-hand corner of the table shows correlation for rural migrants while the lower left side represents correlation for urban migrants.

1. This classification is based on Liu’s (1978) definition.
Figure 3: Path Model of the Process of Stratification for First Job After Move for Urban Migrants.
Figure 4: Path Model of the Process of Stratification for First Job After Move for Rural Migrants.
Figure 5: Path Model of the Process of Stratification for Current Occupation of Urban Migrants.
Figure 6: Path Model of the Process of Stratification for Current Occupation of Rural Migrants.
the direct and indirect effects of the exogenous variables on the dependent variables.

Moreover certain factors initially conceived to be causes of outcome later are not sufficiently important empirically to need representation in the path diagram as direct influences. For instance, in the urban migrants, age and gender have statistically significantly direct paths to occupational prestige before move, while ethnicity does not. However, factors that are not directly influential may have indirect influences on the dependent variables. The direct effect is simply a path coefficient between an exogenous and an endogenous variables. The indirect effect, however, is that of multiplication of the coefficients attached to connecting path. In figure 3, for example, the direct effect between gender and EDUYEAR is 0.2264. The indirect effect between gender and OCBEFORE through EDUYEAR is (0.2264) X (0.5395)=0.1221. Thus, the total effect equals the sum of direct and indirect effects. Still, there may be a spurious or unanalyzed effect among the exogenous variables (unanalyzed effect) or endogenous variables (spurious effect). Therefore, total correlation between two variables that can be decomposed into three components: direct, indirect, and spurious or unanalyzed effects. Tables 3 to 6 presents the decomposition of the zero-order correlation. These results are computed from the path models of figures 3 to 6.

Tables 3 to 6 also allow an assessment of how much of the total association between two variables is spurious or unanalyzed. The correlation between AGE and CITYEXP in table 3, for example, is a spurious relationship under the influence of GENDER and ETHNICITY. About 32 percent (0.0420 ÷ 0.1311) of the total association between AGE and occupational prestige before move (OCBEFORE) is spurious under the joint influence of GENDER and ETHNICITY. Gender has an effect of 0.2448 on first occupational prestige after migration, of which 0.1258 is via the effect of the education attainment (EDUYEAR) and 0.0988 is via the effect of occupational prestige before migration (OCBEFORE).

Educational attainment is the most important factor in determining occupational status. The reduced size of the path coefficient between GENDER and current occupational status (OCNOW) demonstrates this point. The direct effect of GENDER on current occupational status (OCNOW) in table 4, for example, is 0.0900. Thus, individual background does not play an important role in deciding occupational status of men or women.
Table 3: Decomposing the Effects of Variables for First Job After Move for Urban Migrants in the Path Model.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Predetermined Variable</th>
<th>Correlation</th>
<th>Total Effects</th>
<th>EDUYEAR</th>
<th>Indirect Effect via OCBFORE</th>
<th>CITYEXP</th>
<th>Direct Effect</th>
<th>Spurious or Unanalyzed Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUYEAR</td>
<td>GENDER</td>
<td>0.2314</td>
<td>0.2264</td>
<td></td>
<td>0.2264</td>
<td>0.0050</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ETHNICITY</td>
<td>0.2843</td>
<td>0.3112</td>
<td></td>
<td>0.3112</td>
<td>-0.0269</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>-0.1473</td>
<td>-0.2128</td>
<td></td>
<td></td>
<td></td>
<td>-0.2128</td>
<td>0.0655</td>
</tr>
<tr>
<td>OCBFORE</td>
<td>GENDER</td>
<td>0.2805</td>
<td>0.2684</td>
<td>0.1221</td>
<td></td>
<td></td>
<td>0.1463</td>
<td>0.0121</td>
</tr>
<tr>
<td></td>
<td>ETHNICITY</td>
<td>0.2124</td>
<td>0.1679</td>
<td>0.1679</td>
<td></td>
<td></td>
<td></td>
<td>0.0445</td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>0.1311</td>
<td>0.0891</td>
<td>-0.1148</td>
<td></td>
<td></td>
<td>0.2039</td>
<td>0.0420</td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.5433</td>
<td>0.5395</td>
<td></td>
<td></td>
<td></td>
<td>0.5395</td>
<td>0.0038</td>
</tr>
<tr>
<td>CITYEXP</td>
<td>GENDER</td>
<td>0.0399</td>
<td>0.0444</td>
<td>0.0444</td>
<td></td>
<td></td>
<td></td>
<td>-0.0045</td>
</tr>
<tr>
<td></td>
<td>ETHNICITY</td>
<td>0.1068</td>
<td>0.0610</td>
<td>0.0610</td>
<td></td>
<td></td>
<td></td>
<td>0.0458</td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>-0.0013</td>
<td>-0.0417</td>
<td>-0.0417</td>
<td></td>
<td></td>
<td>0.0404</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.1961</td>
<td>0.1961</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.1961</td>
</tr>
<tr>
<td>OCFIRST</td>
<td>GENDER</td>
<td>0.2569</td>
<td>0.2448</td>
<td>0.1258</td>
<td>0.0988</td>
<td></td>
<td>0.0202</td>
<td>0.0121</td>
</tr>
<tr>
<td></td>
<td>ETHNICITY</td>
<td>0.2125</td>
<td>0.1729</td>
<td>0.1729</td>
<td></td>
<td></td>
<td></td>
<td>0.0396</td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>0.1377</td>
<td>0.0939</td>
<td>-0.1182</td>
<td>0.1377</td>
<td></td>
<td>0.0744</td>
<td>0.0438</td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.5521</td>
<td>0.5592</td>
<td></td>
<td>0.3642</td>
<td>0.0186</td>
<td></td>
<td>0.1764</td>
</tr>
<tr>
<td></td>
<td>OCBFORE</td>
<td>0.7930</td>
<td>0.6751</td>
<td></td>
<td></td>
<td></td>
<td>0.6751</td>
<td>0.1179</td>
</tr>
<tr>
<td></td>
<td>CITYEXP</td>
<td>0.1708</td>
<td>0.0775</td>
<td></td>
<td></td>
<td></td>
<td>0.0775</td>
<td>0.0933</td>
</tr>
</tbody>
</table>
Table 4: Decomposing the Effects of Variables for First Job After Move for Rural Migrants in the Path Model.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Predetermined Variable</th>
<th>Correlation</th>
<th>Total Effects</th>
<th>Indirect Effect via</th>
<th>Spurious or Unanalyzed Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>EDUYEAR</td>
<td>OCBEFORE</td>
<td>ASSIST</td>
</tr>
<tr>
<td>EDUYEAR</td>
<td>GENDER</td>
<td>0.1089</td>
<td>0.1313</td>
<td></td>
<td>0.1313</td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>-0.3009</td>
<td>-0.3104</td>
<td></td>
<td>-0.3104</td>
</tr>
<tr>
<td>OCBEFORE</td>
<td>GENDER</td>
<td>0.1571</td>
<td>0.1569</td>
<td>0.0696</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>0.0147</td>
<td>0.0033</td>
<td>-0.1645</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.4888</td>
<td>0.5298</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASSIST</td>
<td>GENDER</td>
<td>0.1294</td>
<td>0.1381</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>-0.1105</td>
<td>-0.1204</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.0634</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITYEXP</td>
<td>GENDER</td>
<td>0.0941</td>
<td>0.0262</td>
<td>0.0262</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>-0.0738</td>
<td>-0.0620</td>
<td>-0.0620</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.1997</td>
<td>0.1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCFIRST</td>
<td>GENDER</td>
<td>0.1852</td>
<td>0.2368</td>
<td>0.1173</td>
<td>0.0431</td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>-0.0107</td>
<td>-0.0809</td>
<td>-0.1767</td>
<td>0.0829</td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.4820</td>
<td>0.5048</td>
<td>0.2617</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OCBEFORE</td>
<td>0.6277</td>
<td>0.4939</td>
<td></td>
<td>0.0211</td>
</tr>
<tr>
<td></td>
<td>ASSIST</td>
<td>-0.1016</td>
<td>-0.1074</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CITYEXP</td>
<td>0.1680</td>
<td>0.0783</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5: Decomposing the Effects of Variables for Current Occupation of Urban Migrants in the Path Model.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Pre-determined Variable</th>
<th>Correlation</th>
<th>Total Effects</th>
<th>Indirect Effect via</th>
<th>Spurious or Unanalyzed Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EDUYEAR</td>
<td>OCBEFORE</td>
</tr>
<tr>
<td>EDUYEAR</td>
<td>GENDER</td>
<td>0.2314</td>
<td>0.2264</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ETHNICITY</td>
<td>0.2843</td>
<td>0.3112</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>-0.1473</td>
<td>-0.2128</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCBEFORE</td>
<td>GENDER</td>
<td>0.2805</td>
<td>0.2684</td>
<td>0.1221</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ETHNICITY</td>
<td>0.2124</td>
<td>0.1679</td>
<td>0.1679</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>0.1311</td>
<td>0.0891</td>
<td>-0.1148</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.5433</td>
<td>0.5395</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITYEXP</td>
<td>GENDER</td>
<td>0.0399</td>
<td>0.0444</td>
<td>0.0444</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ETHNICITY</td>
<td>0.1068</td>
<td>0.0610</td>
<td>0.0610</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>-0.0013</td>
<td>-0.0417</td>
<td>-0.0417</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.1961</td>
<td>0.1961</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCNOW</td>
<td>GENDER</td>
<td>0.2831</td>
<td>0.2705</td>
<td>0.1210</td>
<td>0.0846</td>
</tr>
<tr>
<td></td>
<td>ETHNICITY</td>
<td>0.1716</td>
<td>0.1664</td>
<td>0.1664</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>0.1433</td>
<td>0.1014</td>
<td>-0.1138</td>
<td>0.1179</td>
</tr>
<tr>
<td></td>
<td>EDUYEAR</td>
<td>0.5376</td>
<td>0.5346</td>
<td></td>
<td>0.3119</td>
</tr>
<tr>
<td></td>
<td>OCBEFORE</td>
<td>0.7302</td>
<td>0.5782</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CITYEXP</td>
<td>0.1240</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-determined Variable</td>
<td>Spurious or Unanalyzed Effect</td>
<td>Direct Effect</td>
<td>Indirect Effect via CITYEXP</td>
<td>TOTAL EFFECT</td>
<td>EFFECT</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------</td>
<td>---------------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>--------</td>
</tr>
<tr>
<td>Gender</td>
<td>0.1313</td>
<td>-0.0225</td>
<td>-0.3104</td>
<td>0.0095</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.1089</td>
<td>0.1313</td>
<td>-0.3009</td>
<td>-0.3104</td>
<td>0.0095</td>
</tr>
<tr>
<td>Eduyear</td>
<td>0.0147</td>
<td>0.0033</td>
<td>-0.5298</td>
<td>-0.0410</td>
<td></td>
</tr>
<tr>
<td>Ocbefore</td>
<td>0.1294</td>
<td>0.1381</td>
<td>-0.1204</td>
<td>0.0087</td>
<td></td>
</tr>
<tr>
<td>Assist</td>
<td>0.0941</td>
<td>0.0262</td>
<td>-0.0620</td>
<td>-0.0620</td>
<td></td>
</tr>
<tr>
<td>CITYEXP</td>
<td>0.1997</td>
<td>0.1997</td>
<td>-0.0620</td>
<td>-0.0620</td>
<td></td>
</tr>
<tr>
<td>OCNOW</td>
<td>0.1872</td>
<td>0.1869</td>
<td>-0.0613</td>
<td>-0.1556</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.0071</td>
<td>-0.0061</td>
<td>-0.4628</td>
<td>-0.4628</td>
<td></td>
</tr>
<tr>
<td>Eduyear</td>
<td>0.4846</td>
<td>0.4628</td>
<td>-0.1379</td>
<td>-0.1379</td>
<td></td>
</tr>
<tr>
<td>Ocbefore</td>
<td>0.1284</td>
<td>-0.1379</td>
<td>-0.2452</td>
<td>-0.2452</td>
<td></td>
</tr>
<tr>
<td>Assist</td>
<td>0.1582</td>
<td>0.1582</td>
<td>0.0669</td>
<td>0.0669</td>
<td></td>
</tr>
</tbody>
</table>
The data in Tables 3 to 6 indicate that influences of remote cause are largely indirect effect. As we mention in multiple regression analysis (Chang, 1986), ethnicity effect on occupational prestige before or after migration disappear after controlling for other variables. However, all of ethnicity effect on occupational prestige before or after move is indirectly through educational attainment (see tables 3 and 5). More importantly, most effects of GENDER and ETHNICITY are indirect. The GENDER effect in table 3, for example, has an effect of 0.2448 on first occupational prestige after migration (OCFIRST), of which 0.1258 is via the effect of education and 0.0988 is from occupational prestige before migration (OCBEFORE). However, only 8 percent \((0.0202 \div 0.2448)\) is direct effect. Thus, most of the influence of the social origin is through educational attainment. This is consistent with the findings of Blau and Duncan (1967). The data on tables 4 to 6 also show a similar pattern.

We also need to emphasize that the estimated parameters of the model are rather different in the urban and rural population. A glance at the tables 3 to 6 will reveal that this is true of the gross correlation as well as most of the path coefficient in figures 3 to 6.

Comparing the figures 3 and 4, for example, we see that the path coefficient from respondent's education to first occupational status after migration is relatively higher for rural migrants \((0.2220)\) than for urban migrants \((0.1764)\). However, the compound path, education \((EDUYEAR)\)→ occupational status before move \((OCBEFORE)\) → occupational status after move \((OCFIRST)\), works out as \((0.5298)\times (0.4939) = 0.2617\) for rural but \((0.5395)\times (0.6751) = 0.3462\) for urban migrants. In terms of the magnitudes of the path coefficients, rural migrants convert education into occupational status, holding constant occupational status before move, at a higher rate than urban migrants, but urban migrants have had better fortune in converting education into occupational status before move and that into first occupational status. This is also true in figures 5 and 6.

Moreover, we need to point out that job assistance by relatives exhibits a negative influence on occupational achievement for rural migrants only. The negative relationship does not vanish when other variables are controlled for (see tables 4 and 6). From the figures 4 and 6, we find that the direct effect between GENDER and job assistance from relatives \((ASSIST)\) is 0.1381. This implies that male receive more
assistance from relatives than that of female. On the other hand, age has a negative
direct effect on assistance (-0.1204). What this means is that more young men need
job assistance from relatives. Quite surprisingly, educational attainment does not
have an effect on job assistance by relatives. This result is similar to Li's findings
(1978) for Chinese immigrants in Chicago. Part of the explanation is that most rural
migrants have lower educational attainment (mean = 7.65 years). Perhaps job
assistance by relatives could be worked for relatives for migrants.

IV. CONCLUSION

Our analysis indicate that education has a direct independent effect on occupa-
tion. In Taiwan, education is also used as a criterion in allocating people into differ-
et positions. Although individual background in itself is not an important variable
in influencing occupational prestige, either before or after migration, it may have an
indirect effect on occupational prestige through the educational attainment of
migrants. Thus, educational attainment plays an important role in the social stratifi-
cation process in Taiwan just as in other developed societies.

Surprisingly, assistance from relatives has not influenced the urban migrants' first or current occupation in terms of occupational prestige scores. For rural
migrants, assistance from relative has a negative effect on the occupational prestige
of the first or current job. Although kinship interaction is important for rural mi-
grants, assistance from relatives seems more salient for less educational migrants
than better educated one since the former need assistance to help them find a job.
Obviously, the more prestigious jobs require higher education and specialized skills.
Those jobs which relatives can find may consist mostly of "marginal" or "temporary" jobs. It is possible that relatives had only limited knowledge of the market and
could not locate the jobs migrants desired. These migrants may concentrate their job
search in particular occupations or establishments, primarily because these contacts
are most knowledgeable about vacancies in their own occupations and establish-
ments and perhaps because they have the most influence with their own employers.
In contrast, those who do not need assistance from relatives may arrange to look for
work through formal channels.
REFERENCES

Balan, Jorge

Becker, Gary S.

Blau, Peter M. and Otis D. Duncan

Bock, E. Wilbur and Sugiyama Iutaka

Bogue, Donald J.

Census Office of the Executive Yuan

Chang, Ching-fu

Chiswick, Barry R.

Choldin, Harvey M.  

Duncan, Otis D., D. L. Featherman and B. Duncan  
1972 *Socioeconomic Background and Achievement.* New York: Seminar Press.

Duncan, R. Paul and Carolyn Cummings Perrucci  

Ferber, M. and J. Huber  

Freedman, Ronald and Amos H. Hawley  

Goldscheider, Calvin  

Granovetter, Mark S.  

Greenwood, Michael J.  

Grichting, Wolfgang L.  
1971  "Occupational Prestige Structure in Taiwan." *National Taiwan University Journal of Sociology* 7: 67-78.
Hawley, A. H.

Hogan, Daniel J. and Nanoel T. Berlinck

Hsieh, Kao-chiao

Huang, Nora Chiang

Isard, W.

Jansen, Clifford J. (ed.)

Koo, Hagen and Herbert R. Barringer

Lane, Angela Victoria

Lansing, J. B. and E. Mueller
Lee, Everett S.

Li, Peter S.

Lichter, Daniel T.

Lin, Nan, John C. Vaughn and Walter M. Ensel

Lin, Nan, Walter M. Ensel and John C. Vaughn

Lipset, Seymour Martin and Reinhard Bendix

Litwak, Eugene

Liu, Paul K. C.

Long, Larry H.
Lurie, Melvin and Elton Rayack

Mangalam, J. J. and Harry K. Schwarzweller

Marsh, Robert M.

Matras, Judah

Mincer, J. and S. Polachek

Moots, Baron L.

Nam, Charles B. and Susan D. Gustavus.

Oppenheimer, Valerie
Palmer, Gladys

Petersen, William

Polachek, S. W.

Prehn, John W.

Raczynski, Dagmar

Rank, Mark R. and Paul R. Voss

Ravenstein, E. G.

Ritchey, P. Neal

Rosenfeld, Rachel A.
Rosenfeld, Rachel A. and Aage B. Sorensen

Rossi, Peter H. and Michael D. Orenstein

Scudder, Richard and C. Arnold Anderson

Sjaastad, Larry A.

Sorensen, Aage B.

Speare, Alden, Jr.

Stouffer, S. A.

Tilly, Charles and C. Harold Brown
Treiman, Donald J.

Wang, Charlotte Shiang Yun

Wolf, Wendy C. and Rachel Rosenfeld
1978 “Sex Structure of Occupations and Job Mobility.” *Social Forces* 56: 823-844.
高雄市移民職業成就的研究

張清富* 謝高橋**

（中文摘要）

本研究的對象是一項民國六十六年移入高雄市人口的抽樣調查資料，其主要目的在結合個別和脈絡變數，以便研究移民的職業成就，本文分析的理論基礎有地位取得理論和資訊來源假設。

應用布勞與鄧肯的基本模式，本文發現移民本身的教育程度為決定移民本人職業成就的最重要因素。此外，本研究亦發現移民的親友協助只對來自鄉村移民的職業成就有不好的影響，其他變數對移民個人的職業成就沒有任何影響。

* 國立中興大學社會學系副教授。
** 國立政治大學社會學系教授。
A STUDY OF OCCUPATIONAL ACHIEVEMENT OF MIGRANTS TO KAOHSIUNG CITY, TAIWAN

(ABSTRACT)

Based on a survey of 452 migrants who moved into Kaohsiung City, Taiwan, in 1977, this paper tests two major hypotheses of occupational achievement within the context of migration. They are status attainment and information hypotheses.

Using the Blau-Duncan basic model, our data find that educational attainment of migrants is the most important factor in determining an individual's occupational achievement. More importantly, assistance from relatives has a negative effect on occupational achievement for rural migrants only. Other variables do not influence an individual's occupational status.